



**REGION 2
UNIVERSITY TRANSPORTATION RESEARCH CENTER
RFP COVER SHEET**

Title: Diesel Retrofit Assessment

RFP Number: C-07-12

Sponsor: NYSDOT

Date Issued: September 17, 2007

Pre-Proposal Meeting Date: None

Draft Budget Due at UTRC: October 31, 2007 (send to ckamga@utrc2.org)

Final Proposal Due at UTRC: November 2, 2007 (send to ckamga@utrc2.org, cc: nadia@utrc2.org)

RFP Closing Date: November 2, 2007

If you plan to apply:

Please contact Nadia Aslam at nadia@utrc2.org (cc: ckamga@utrc2.org) to let us know you are assembling a proposal. We will make sure you receive any additional information that becomes available about this RFP.

Proposal submission guidelines:

Please submit your proposal electronically to UTRC. We will confirm that the proposals make comparable budget assumptions and will deliver the proposals to the sponsoring agency by the closing date.

Funding available:

Up to \$200,000 is available from NYSDOT. USDOT (UTRC) will provide up to \$35,000 in matching funds for requested funding above this budgeted amount. To the extent possible, we request that PIs identify sources of in-kind funding from their home institution (e.g., tuition waiver/reductions, overhead cost-sharing, faculty release time, etc.)

For questions about this proposal, please contact:

Deborah Mooney (dmooney@dot.state.ny.us) or Paul Hoole (phoole@dot.state.ny.us)
Research and Policy Studies Section, 6th Floor
New York State Department of Transportation
50 Wolf Road
Albany, NY 12232

For questions about budget preparation, please contact: Camille Kamga,
ckamga@utrc2.org

Request for Proposals
SPR # C-07-12: Diesel Retrofit Assessment
9/17/07

RESEARCH PROBLEM STATEMENT

NYSDOT is mandated by law to retrofit its existing diesel engine fleet with “Best Available Retrofit Technology”. This means a Tier 3 USEPA or California Air Resources Board (CARB) approved technology. During the period when equipment is being retrofitted and after installation, existing service levels (duty cycles) must be maintained, so NYSDOT’s public safety role for removing snow and ice and responding to emergencies is not compromised. If Tier 3 technology is unpractical, Tier 2 Technology will be evaluated. If Tier 2 technology is unpractical, Tier 1 technology will be evaluated.

OBJECTIVES

Determine what technology will allow NYSDOT to achieve compliance with the law without negatively impacting NYSDOT’s ability to provide critical public safety and health services, such as snow and ice control and emergency response. This technology will ideally be “passive”, meaning the technology will not require off board, regeneration, cleaning, or servicing of the retrofit equipment, beyond normal preventive maintenance schedules of once per calendar quarter. Determine the compliant equipment which achieves the highest emissions reduction at lowest total life cycle cost including but not limited to purchase, maintenance, engineering and installation.

PROPOSED RESEARCH TASKS

Task descriptions are intended to provide a framework for conducting the research. NYSDOT is seeking the insights of proposers on how best to achieve the research objectives. Proposers are expected to describe research plans that can realistically be accomplished within the constraints of available funds and research period. Proposals must present the proposer’s current thinking in sufficient detail to demonstrate their understanding of the issues and the soundness of their approach to meeting the research objectives.

Possible Research Tasks:

- Research compliant technologies and determine what existing technologies are compliant with this RFP as previously stated.
- Determine the feasibility, practicality, cost and schedule for installation per unit by model year. Determine feasibility for installation on DOT fleet as a result of equipment duty cycles. For snow and ice fleet, a winter and summer cycle analysis is required. Recommend compliant, cost effective, solution that achieves maximum benefit without creating public service issues
- List available qualified installers and timeline of completed installations.
- Determine impact on existing vehicle /engine warranties. As practical acquire written certification from OEM’s that installation of this equipment will not void existing warranties.

- Provide proof of written warranties for all materials, engineering and installation.
- Provide cost /benefit analysis of recommended solution.
- Provide maintenance procedures and parts list for all components including manuals.

RESEARCH PRODUCTS

Final report detailing NYSDOT's options to comply with "Best Available Research Technology" (BART) diesel retrofit law with recommended solution for each vehicle/equipment unit based on duty cycle analysis.

URGENCY / EXPECTED BENEFITS

Time is of the essence. It is estimated that this project will take approximately six months to acquire duty cycle analysis of our snow and ice fleet in both summer and winter operations.

FUNDING

\$ 200,000 has been budgeted for this project, exclusive of administrative fees. New York State believes this is a reasonable estimate for the total cost of the work being requested.

The net cost to New York State is one of the selection criteria. When compared to competing proposals, a proposal that requires fewer New York State dollars will receive a higher score on the cost component of the selection criteria. The value of New York State funds required could be reduced through efficiencies (fewer hours per task and/or lower cost per hour) or through cost-sharing where other funds substitute for New York State funds.

Proposals with a New York State cost over the budgeted amount will also be considered, provided the New York State cost, exclusive of administrative fees, does not exceed the budget estimate by more than 10%. (Note: Cost-sharing funds may increase the total project cost further.)

RESEARCH PERIOD

Approximately, nine months

SPECIAL NOTES

- **Proposals are due by close of business, November 2, 2007.** NYSDOT has a contract in place with three research consortia. This Request for Proposals is being offered to the members of these consortia only. Members should submit proposals through the administrators of these consortia. The receipt of a pdf copy of the proposal by NYSDOT on or before the above due date is satisfactory, providing five (5) hard copies follow within a week.
- **The designated contacts for this solicitation are Paul Hoole and Deborah Mooney.** Questions seeking clarification on the RFP will be accepted up to two weeks prior to the due date for proposals and should be e-mailed to: phoole@dot.state.ny.us **and** dmooney@dot.state.ny.us [See special note on Lobbying Law.]

- Lobbying Law: Principal investigators should be familiar with and follow the requirements of New York State (the Compliance Procurement Lobbying Law of 2005) with regard to consultant contract procurement. Information can be found on the NYSDOT web site (www.NYS DOT.gov) under “Business Center,” then “Consultants,” then “Non-Architectural Engineering,” then Active Solicitations.”

In particular, please note that communications between Contractors, Consultants/Principal Investigators, and Vendors with the Department are restricted during the period of time when services for more than \$15,000 have been requested (Request for Proposals issued), up until the time when the Consultant is selected. During this time communications, where *a reasonable person would infer that the communication was intended to influence the procurement*, should be limited to Department staff identified in the solicitation as “designated contact.”

Any communication with an employee, who is not a designated contact which is intended to influence the solicitation, could result in the outside party being prohibited from competing for the solicitation. A second violation will ban the Consultant/Principal Investigator from competing for any Department solicitation for four years.

- Proposals should indicate direct and indirect costs, hourly rates and hours by task, travel costs, and material costs to assist NYSDOT in understanding how the total cost for the work was estimated. The winning proposal will result in a fixed cost contract based on details provided.
- Please provide a budget chart which shows for each task the deliverable and cost. Task headings in the Budget Chart are to match the scope task headings.
- Please include a Gantt Chart, showing the duration (start to finish) for each task in terms of months (i.e. Month 1, Month 2, etc) since the actual start date is an estimate.
- If the proposal involves a joint venture or sub-consultants, it must be clear as to how tasks will be distributed or shared in the scope of work.
- Proposals, where the New York State costs total more than 10% over the budgeted cost, will not be considered for selection. If a potential principal investigator believes the research cannot be reasonably conducted without an increase in the budget, they should write to:

Paul Hoole, Director
 Research and Policy Studies Section, 6th Floor
 New York State Department of Transportation
 50 Wolf Road
 Albany, NY 12232

If a sufficient number of potential principal investigators indicated in writing that they believe the research cannot be reasonably conducted within the funding constraints specified and there are only a limited number of proposals submitted within the funding constraints, New York State reserves the option of not

proceeding with the work or revising the budget estimate and issuing a new Request for Proposals.

- The final report on the research will be expected to contain as a minimum the information described in Attachment A, *Requirements for the Final Report*.

CRITERIA FOR SELECTION

Expertise / Understanding / Approach (Weight: 70%)

Expertise: What is the extent of the relevant experience of the Principal Investigator? What is the extent of the relevant experience of others who will be involved in the research?

Understanding of the Problem: Does the proposal reflect an understanding of the problem and its relevance to New York State? Does the proposal reflect an understanding of existing data and the current state of knowledge in New York State?

Approach: Is the proposed approach clear, especially in how it will build upon and enhance the state of knowledge in New York State? Will it yield the deliverables called for in the RFP? Does the approach show insight that will lead to results that will sufficiently assist New York State in addressing the problem? Is the proposed approach practical given the schedule and total budget? Will the proposed research draw upon all critical sources of pertinent information?

Investigators Previous Experience with Similar Projects (10%)

Successful completion of previous projects by the Investigator(s) will be considered. These projects should be in the area of expertise required for successful completion of this project, such as bridge inspection, structural engineering, and seismic engineering.

Cost to New York State (Weight 20%)

The lower the New York State cost, the greater consideration a proposal will receive.

Requirements for the Final Report

Copies of Report – Twenty-five (25) copies of a bound final report shall be provided at the conclusion of the research study. A pdf copy of the report is required as well.

Required Organization for the Final Report

Title Page - that contains:

- the research number assigned by Policy and Strategy Division;
- the name of the research study as stated in the contract;
- the words “Final Report”;
- the date (month & year) the final report is finalized;
- the name(s) of the consultant(s) / principal investigator(s), along with the name of the organization(s) they represent and their address(es); and,
- if the report has a security classification, it shall be noted on the title page.

Disclaimer - as follows:

DISCLAIMER

The contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the New York State Department of Transportation, the United States Department of Transportation, or the Federal Highway Administration. This report does not constitute a standard, specification, regulation, product endorsement, or an endorsement of manufacturers.

Form DOT F 1700.7 – A copy of USDOT form DOT F 1700.7

Executive Summary

Introduction – a discussion of the problem, its background, a concise history of research previously completed on the topic, and a discussion of what NYSDOT policies, procedures, and practices are currently in place related to the research topic.

Research Method – a description of the methods used in conducting the research

Findings and Conclusions – a discussion on the analysis of the data (findings) and the conclusions reached based on the findings. Suggestions for additional research, if appropriate, would appear in this section.

Statement on Implementation – the statement shall discuss the potential for implementation, along with what resources and actions will be required to have the benefits of the research fully achieved.

Appendices – as appropriate